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(19)



JAPANESE PATENT OFFICE

PATENT ABSTRACTS OF JAPAN

(11) Publication number: **63148102 A**

(43) Date of publication of application: **21.06.88**

(51) Int. Cl

G01B 7/30
B60Q 1/40
G01D 5/245

(21) Application number: **61293909**

(22) Date of filing: **10.12.88**

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(54) ROTATIONAL ANGLE DETECTOR

misdetection due to the dust, lubricant, etc.

(57) Abstract

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PURPOSE: To eliminate the influence of dust, a lubricant, etc., and to preclude misdetection by arranging a sensor consisting of a magnet and magneto-resistance elements opposite a slit body made of a magnetic material and converting variation of an electric field into a pulse signal.

CONSTITUTION: The slit body 5 made of the magnetic material is fitted to the steering wheel, etc., of a vehicle with a specific cam interposed, and the sensor consisting of the magnet 15, magneto-resistance elements 13 and 13a, and pulse generating circuits 14 and 14a which is not affected by dust, a lubricant, etc., is arranged opposite the slit body. When the slit body 5 passes in a sensor magnetic field in response to the steering wheel, the elements 13 and 13a detect variation of the magnetic field and the circuits 14 and 14a convert it into the pulse signal and send it to a controller such as a microcomputer, and the controller detects the quantity of rotation of the steering wheel from the number of pulses and the rotating direction from the position of the pulses. Consequently, the rotational angle detector is obtained which is free from

